

Testimony in Support of Technical High Schools

Dear members of the Appropriations Committee,

Connecticut Association of Smaller Manufacturers (CASM), is comprised of the Smaller Manufacturers Association (SMA), the New Haven Manufacturers Association (NHMA), Manufacturers Education and Training Alliance (METAL) and the New England Spring & Metal STAMPING Association and collectively represents over 400 companies with more than ten percent of the employees in the state's manufacturing sector. While Connecticut has received encouraging news about Electric Boat's and Pratt Whitney's intentions to expand their workforce in Connecticut, CASM remains concerned about the scarcity of advanced manufacturing talent in the Connecticut labor pool. Expansion of large prime contractors' workforces often comes at the expense of their second and third tier suppliers. CASM strongly supports sustaining, if not expanding, the flow of manufacturing graduates from the Connecticut Technical School System and Community Colleges. Currently there are two threats to the sustainability of these schools: budget and the supply of qualified instructors.

During the last legislative session, bills were passed that allocated \$5M of bond monies to start an adult education program at the Technical High Schools while cutting the operating budget of these schools by \$7M. The result was an increased demand on teaching resources while reducing schools' ability to hire. We are dismayed to see that the Malloy budget recommends cutting the Technical School program by another \$6M.

Sadly, this is not a problem that can be resolved by spending alone. Like the manufacturing community, Technical High Schools are dealing with an aging workforce and critical personnel are looking at retiring from the workforce during the next couple years. CASM thanks the Governor and General Assembly for the investments made in the Technical High Schools and the Advanced Manufacturing Centers in the Community College System. The Education Committee should understand that enrollment in these programs, plus private accredited programs, is significantly constrained by the safety concerns raised by a lack of qualified instructors in these programs. Given lean vocational staffing, the retirement of even one instructor can have enormous impact on a school curriculum. There are a number of statutory and contractual barriers that complicate replacing key instructor positions.

Credentials: A minimum requirement for instructor candidates is that their passion for teaching is high enough that they can accept the gap in pay between industry and teaching. Currently instructor positions in the Technical High Schools require eight years on industry experience. Our data shows that the starting salary for most trade instructors is between \$51K - \$56K. With eight years of experience, industry technicians will earn between \$20K and \$30K more than their teaching counterparts. For industry professionals, the most rapid growth in salary occurs after five years of service. If the credential for Technical School instructors was lowered to five years of experience, the wage gap can be narrowed considerably.

Community and private colleges also struggle with credentials. Currently a college instructor is required to have earned a Master's degree in Science to qualify as a college manufacturing instructor. This requirement also creates a significant wage gap between colleges and the industry sector. Colleges typically think in terms of terminal degrees in a subject area to assess academic qualification for teaching. There are no terminal degrees for production workers or CNC machine operators, etc. There

are many highly skilled practitioners who would serve well in the classroom with some training in pedagogy. CT ought to loosen faculty requirements in **this area alone**, and allow individual colleges to demonstrate a practitioner's technical expertise by their years of work experience, technical skills and faculty professional development.

Accreditation: If you can overcome the wage gap, Technical High Schools face another hurdle with accreditation. Connecticut's trade instructors are required to complete 12 courses in no later than six years after hire with the first 3 critical courses to be completed in year one of their employment or their initial certification will not be renewed. A new Department Head must complete 2 additional classes within the first 2 years. The new instructor must teach all day and then attend evening college classes at CCSU 1-3 nights per week for approximately 5-6 years. For a single person this is a stretch. For a person with a family and children at home, it would be extremely difficult. Additionally, the classes cost over \$1100 each. (Interesting note: applicants with an associates degree pay \$700 more per class.)

We see a wide consensus that developing instructors to be teachers is a positive differentiator for Connecticut schools. What is onerous is the cost and sacrifice we subject instructors, coming from the industry sector, to earn their accreditation. Currently the accreditation track is only taught in an evening classroom format at Central Connecticut State University. Thus, to become a fully-accredited instructor, candidates must pay up to \$15K in tuition, pay the cost of commuting to CCSU three evenings per week, and surrender the time to be away from their families.

At a minimum, we recommend these classes be delivered in an online format or at additional State University campuses. We also strongly recommend that the criteria for financial assistance be modified for manufacturing instructors to more fairly address their financial burden.

An Observation on Technical High Schools: During the last legislative session, a bill was passed to take the Department of Education out of the process for approval of hiring requisitions. The bill permitted the process to be managed between the school administrators and OPM. For reasons we do not understand, it continues to take an excessive amount of time to get requisitions posted. We assume that further tightening of budgets will not improve this situation.

CASM also supports the House Speaker's bill, HB 5585, to remove oversight of the Technical High School System from the Department of Education and create an independent agency for these schools. These schools' unique capital asset and instructor development requirements can best be managed with an administration unencumbered with balancing these requirements against K through 12 programming.

An Observation on the Economy: The promise of technical education is an opportunity for young people to find jobs that pay well in Connecticut. We would like to share an observation that there may be an opportunity to enrich that promise. Factory automation has created a need for technicians that have a balanced background in programming, electronics, and mechanical systems. (This curriculum is sometimes referred to as "mechatronics." Such individuals can play a key role in configuring and maintaining programmable controllers and it is our opinion that Technical High Schools can produce graduates that can immediately be productive in this area. We recommend that Technical High Schools adapt their curriculums to this requirement and that the Higher Education Committee consider mechatronics as an opportunity for public-private partnership to create a new apprenticeship program.

We would like to present some numbers that point to the need for prompt action in filling open positions in the CTHSS. Most of the students in the Manufacturing Tech programs have job offers before they graduate. A 2 instructor shop can have 18 students per grade which equals 36 students in the shop at once. If we can fully staff these programs and if it continues to hold true that 98% of the CTHSS students graduate and get jobs, we would have 270 graduates employed in manufacturing not including those graduating from the Advanced Manufacturing Centers at the Community Colleges. The problem is that industry is projecting a need for thousands and we are graduating hundreds.

Open positions at present or by Fall 2017:

Kaynor Tech – 1 Full Time Instructor
Bullard Havens – 1 Full Time Instructor
Emmett O'Brien – 1 Full Time Instructor
Platt Tech – 1 Part Time Instructor
Platt Tech – 1 Full Time Instructor for Mechatronics
Cheney Tech – 1 Full Time Instructor/Department Head
Eli Whitney – 1 Full Time Instructor/Department Head

Each position represents

Finally, we acknowledge that the Governor and the General Assembly face a monumental task in finding budget solutions. While making tough decisions in the coming months, we hope the General Assembly will make it clear to the people of Connecticut where they see hope for the future. We have watched with dismay as members of our association have fallen into a cycle of downsizing they could not break. Be clear on your vision and do not fall into this cycle. CASM strongly believes that investment in our young people to perform jobs that are integral to our economic future is a way to move Connecticut forward.